

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION

ROTHSCHILD CONNECTED
DEVICES INNOVATIONS, LLC,

Plaintiff,

v.

THE COCA-COLA COMPANY,

Defendant.

CIVIL ACTION FILE
NO. 1:16-CV-1241-TWT

OPINION AND ORDER

This is a patent infringement lawsuit involving Coca-Cola's Freestyle Dispenser. It is before the Court on the Defendant's Motion for Summary Judgment of Non-Infringement and Invalidity [Doc. 138]. For the reasons set forth below, the Defendant's Motion for Summary Judgment of Non-Infringement and Invalidity [Doc. 138] is GRANTED as to non-infringement of Claims 11, 12, 17, and 21-23, and DENIED as to the invalidity of U.S. Patent No. 8,417,377.

I. Background

The Plaintiff Rothschild Connective Devices Innovations, LLC is a Texas limited liability company with its principal place of business in Plano, Texas.¹

¹ Def.'s Statement of Material Facts ¶ 1.

Rothschild is the owner of U.S. Patent No. 8,417,377 (“the ‘377 Patent”).² The ‘377 Patent, issued on April 9, 2013, covers “a system and method for creating a personalized consumer product.”³ The patented subject matter relates to a system in which a consumer can customize a product and transmit these product preferences to a dispenser with mixing capabilities. The claims at issue in this case involve a beverage dispenser. These claims describe a beverage dispenser that produces a personalized beverage based upon a user’s individual beverage product preferences.

The Defendant The Coca-Cola Company is a Delaware corporation with its principal place of business in Atlanta, Georgia.⁴ Coca-Cola makes, sells, uses, offers to sell, and sells the “Freestyle Dispenser,” a beverage dispenser that allows users to select a desired beverage from over one hundred beverage choices. The Freestyle Dispenser is a chilled beverage vending device that dispenses customized blends of carbonated and non-carbonated soft drinks.⁵ The Freestyle offers over one hundred pre-programmed, specially-formulated

² *Id.* ¶ 2.

³ ‘377 Patent, 1:1-2.

⁴ First Am. Compl. ¶ 2.

⁵ Pl.’s Statement of Material Facts ¶ 7.

soft drink blends.⁶ It also allows a user to create a custom blended drink.⁷

The Freestyle Dispenser is an example of the technological shift in soda fountains and beverage dispensers. In the past, the vast majority of carbonated drink dispensers used “post-mix drink syrup” – large, bag-in-box flavor syrups that would connect through a hose to a beverage dispenser.⁸ These beverage dispensers only allowed for a handful of options – usually about ten drink brands at a particular dispenser.⁹ Users also could not customize their drinks.¹⁰ Because of these limitations, the beverage industry began to look for ways to offer more customization and flavoring options.¹¹ One example of these efforts is the “micro-dosing system.”¹² As opposed to the traditional post-mix syrup system, micro-dosing uses a mix of highly-concentrated base of micro-dosed ingredients, a sweetener, and water to create a beverage.¹³ This system, which is vastly more space efficient than the traditional post-mix

⁶ *Id.* ¶ 8.

⁷ *Id.*

⁸ Wolski Expert Report [Doc. 138-20] ¶ 35.

⁹ *Id.* ¶ 36.

¹⁰ *Id.*

¹¹ *Id.* ¶ 37.

¹² *Id.* ¶ 43.

¹³ *Id.*

syrup, allowed for a wider variety of beverages to be dispensed from a particular dispenser.¹⁴

The Freestyle uses two main categories of ingredients: micro-ingredients and macro-ingredients.¹⁵ The macro-ingredients, which comprise the majority of the volume of the beverages, include high fructose corn syrup, carbonated water, and plain water.¹⁶ The micro-ingredients, which are stored in box-like cartridges, contain the individual flavor elements, such as Coca-Cola or Sprite.¹⁷ These micro-ingredients are highly-concentrated. The cartridges that store these micro-ingredients are much smaller than the traditional post-mix drink syrup containers. A Freestyle Dispenser can hold up to 40 individual micro-ingredient cartridges.¹⁸ The macro-ingredients – the carbonated water, plain water, and high fructose corn syrup – are combined in a circular enclosure inside the dispenser and dispensed from a nozzle assembly.¹⁹ The micro-ingredients – the flavor elements – are added mid-air

¹⁴ *Id.* ¶ 44.

¹⁵ Pl.’s Statement of Material Facts ¶ 13.

¹⁶ *Id.* ¶ 14.

¹⁷ *Id.* ¶ 15.

¹⁸ *Id.* ¶ 16.

¹⁹ *Id.* ¶ 45.

to this stream of macro-ingredients, just outside of the nozzle assembly.²⁰

The Freestyle Dispenser distinguishes between two types of beverage products.²¹ “Drinks” are pre-programmed recipes listed on the touchscreen monitor of the dispenser.²² The Freestyle Dispenser can offer over 100 pre-programmed beverage options.²³ “Mixes” are custom blends of drinks that are made from additional combinations of flavor elements.²⁴ The Freestyle Dispenser has a mobile phone application (the “Freestyle App”), that allows users to interact with Coca-Cola’s database.²⁵ A user can utilize the Freestyle App to save a drink mix that will be stored in the Coca-Cola database.²⁶ Rothschild contends that the Freestyle Dispenser infringes Claims 11, 12, 17, and 21-23 of the ‘377 Patent. Specifically, Rothschild alleges that the use of the Freestyle Dispenser, in conjunction with the Freestyle App, to create a personalized beverage product infringes these claims. Coca-Cola now moves for summary judgment as to non-infringement and invalidity.

²⁰ *Id.* ¶ 46.

²¹ *Id.* ¶ 26.

²² *Id.* ¶ 27.

²³ *Id.*

²⁴ *Id.* ¶ 30.

²⁵ *Id.* ¶ 25.

²⁶ *Id.* ¶ 32.

II. Legal Standard

Summary judgment is appropriate only when the pleadings, depositions, and affidavits submitted by the parties show no genuine issue of material fact exists and that the movant is entitled to judgment as a matter of law.²⁷ The court should view the evidence and any inferences that may be drawn in the light most favorable to the nonmovant.²⁸ The party seeking summary judgment must first identify grounds to show the absence of a genuine issue of material fact.²⁹ The burden then shifts to the non-movant, who must go beyond the pleadings and present affirmative evidence to show that a genuine issue of material fact exists.³⁰ “A mere ‘scintilla’ of evidence supporting the opposing party’s position will not suffice; there must be a sufficient showing that the jury could reasonably find for that party.”³¹

III. Discussion

A. Infringement

Coca-Cola first moves for summary judgment as to infringement. Patent infringement analysis involves a two-step process. First, the claims of the

²⁷ FED. R. CIV. P. 56(a).

²⁸ *Adickes v. S.H. Kress & Co.*, 398 U.S. 144, 158-59 (1970).

²⁹ *Celotex Corp. v. Catrett*, 477 U.S. 317, 323-24 (1986).

³⁰ *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 257 (1986).

³¹ *Walker v. Darby*, 911 F.2d 1573, 1577 (11th Cir. 1990).

patent must be construed as a matter of law. Second, the claims as construed must be compared to the accused product.³² “Infringement is a question of fact.”³³ “To prove infringement, the patentee must show that an accused product embodies all limitations of the claim either literally or by the doctrine of equivalents.”³⁴ “If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law.”³⁵

1. Discovery Disputes and the Dependent Claims

Coca-Cola first argues that the Court should enter summary judgment as to non-infringement because Rothschild refused to provide certain disclosures during discovery. Specifically, Coca-Cola argues that Rothschild waited until after the end of fact discovery to disclose its infringement contentions,³⁶ and that it failed to meet its disclosure obligations under the Local Patent Rules and the Federal Rules of Civil Procedure.³⁷ Although Coca-Cola certainly could have been more diligent in raising these complaints

³² *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1323 (Fed. Cir. 2001).

³³ *Charles Mach. Works, Inc. v. Vermeer Mfg. Co.*, 723 F.3d 1376, 1378 (Fed. Cir. 2013).

³⁴ *Cephalon, Inc. v. Watson Pharm., Inc.*, 707 F.3d 1330, 1340 (Fed. Cir. 2013).

³⁵ *Id.*

³⁶ Def.’s Mot. for Summ. J., at 7-12.

³⁷ *Id.* at 12-18.

during the discovery period, Rothschild persisted in refusing to disclose the large majority of its infringement allegations. In fact, in reviewing the portions of the record relating to discovery in this case, it was never clear exactly which dependent claims Rothschild intended to assert and what its purported basis for recovery was under those claims. Coca-Cola repeatedly requested Rothschild to disclose the claims it intended to assert, and Rothschild consistently failed to provide an adequate disclosure. Both parties contributed to this mess.

Some context of the procedural development of this case will be helpful in analyzing Coca-Cola's grievances as to the discovery disputes here. This case was originally filed in the Southern District of Florida and was subsequently transferred to this District in April 2016. At that point, the parties had already filed their opening claim construction briefs with the Southern District of Florida. Then, at a scheduling conference in December 2016, Coca-Cola requested that the Court compel Rothschild to serve infringement contentions as required by Local Patent Rule 4.1. Local Patent Rule 4.1 requires a party claiming patent infringement to provide the opposing party a Disclosure of Infringement Contentions, including, among other things, "[a] chart identifying specifically where each element of each asserted claim is found within each Accused Instrumentality."³⁸ The Court declined this request, noting that this issue had already been addressed by the claim construction

³⁸ N.D. Ga. Patent L.R. 4.1(b)(3).

briefs, and that it did not believe it was necessary to go back and apply deadlines that would have applied had the case been originally filed in this District.³⁹

In December 2016, Coca-Cola served its first interrogatory on Rothschild, seeking, among other things, infringement contentions similar to those that would have been disclosed under the Local Patent Rules.⁴⁰ Specifically, Coca-Cola requested that Rothschild:

Identify each claim of the '377 Patent that You contend Coca-Cola has infringed, and for each identified claim, state the entire factual basis for Your contention that the claim is infringed, including without limitation: (i) an identification of each accused apparatus, method, composition, or other accused instrumentality; (ii) where each element of each claim is found within each accused instrumentality, including the identity of the structures, acts, or materials in the accused instrumentalities that perform the claimed function; and (iii) whether each element of each asserted claim is claimed to be literally present, present under the doctrine of equivalents, or both, in each accused instrumentality that performs the claimed function.⁴¹

In its first response to this interrogatory, Rothschild stated that it was “drop[ping]” its allegations under Claim 1 of the '377 Patent, and intended to assert Claim 11 of the '377 Patent and “dependent claims therefrom.”⁴² However, it did not identify which dependent claims it intended to assert, or

³⁹ Transcript [Doc. 138-12], at 7.

⁴⁰ Def.'s Statement of Material Facts ¶ 23.

⁴¹ *Id.*; Def.'s Statement of Material Facts, Ex. 31 [Doc. 138-33], at 7.

⁴² Def.'s Statement of Material Facts, Ex. 9 [Doc. 138-11], at 5.

the basis for its contention that the Freestyle Dispenser infringed these claims.

Then, in its Supplemental Response to Defendant's First Set of Interrogatories, Rothschild listed documents that "identify a component of the Freestyle dispenser that RCDI alleges to be a 'mixing chamber.'" ⁴³ These documents included various patents assigned to Coca-Cola. Rothschild contended that these patents identified parts of the Freestyle Dispenser that meet the limitations of Claim 11. ⁴⁴ After that, in its Second Supplemental Responses to Defendant's First Set of Interrogatories, Rothschild identified documents concerning Coca-Cola's manufacturing partner Inventech and the "dispensing nozzle" in the Freestyle Dispenser. ⁴⁵ Rothschild further discussed various patents assigned to Coca-Cola that it believed supported its infringement arguments. ⁴⁶ Thus, despite Coca-Cola's request that it identify each claim of the '377 Patent that it intended to assert, Rothschild provided nothing more than that it intended to assert Claim 11 and its dependent claims.

Instead, the only disclosure by Rothschild as to which dependent claims it intended to assert was by email communication. On March 21, 2018, counsel for Coca-Cola emailed counsel for Rothschild, stating that "[s]ince expert

⁴³ Def.'s Statement of Material Facts, Ex. 12 [Doc. 138-14], at 5.

⁴⁴ *Id.*

⁴⁵ Def.'s Statement of Material Facts, Ex. 13 [Doc. 138-15], at 6-9.

⁴⁶ *Id.*

reports are due a week from today, please confirm that only claim 11 is being asserted, or if that's not correct, identify which other claims of the '377 patent RCDI is asserting in this case.”⁴⁷ Counsel for Rothschild responded: “Our proposed amended complaint only asserts infringement of claims 11-13, 15, 17, 19, and 21-25 of the '377 patent. To streamline the case, we hereby drop claims 13, 15, 19, 24 and 25 from that list.”⁴⁸ As far as the Court is aware, this is the only time that Rothschild disclosed which dependent claims it intended to assert, outside of the Proposed Amended Complaint. This email communication, nearly two years after Coca-Cola first served interrogatories, is not an adequate manner of responding to Coca-Cola's discovery request.

Rothschild's First Amended Complaint adds to some of this confusion. In March 2016, before this action was transferred to this District, Rothschild moved for leave to file a First Amended Complaint.⁴⁹ In a draft of the First Amended Complaint attached to that motion, Rothschild added allegations, asserting that Coca-Cola infringed Claims 11-13, 15, 17, 19, and 21-25 of the '377 Patent.⁵⁰ This motion, which was originally filed while this case was in the Southern District of Florida, sat on the docket until Rothschild brought it up at a status conference in April 2018. Although Coca-Cola originally opposed

⁴⁷ See [Doc. 138-6], at 2.

⁴⁸ *Id.*

⁴⁹ See [Doc. 35].

⁵⁰ See [Doc. 35-1] ¶¶ 11, 23.

this motion, it informed the Court at the April 2018 status conference that it no longer opposed the motion. Because of this, the Court granted Rothschild's Motion for Leave to File a First Amended Complaint on May 16, 2018.⁵¹ However, Rothschild did not file its First Amended Complaint until August 9, 2018 – almost 4 months later, and one day after Coca-Cola filed its original Motion for Summary Judgment.⁵² In the First Amended Complaint, Rothschild alleges that the Freestyle Dispenser infringes Claims 11-12, 17, and 21-23 of the '377 Patent.⁵³ Coca-Cola then moved to strike the First Amended Complaint, arguing that it was untimely.⁵⁴ The Court denied Coca-Cola's Motion to Strike the First Amended Complaint.⁵⁵

Although the Court declined to compel Rothschild to serve infringement contentions under the Local Patent Rules, and declined to strike the First Amended Complaint as untimely, it has become clear that Rothschild has acted like a moving target throughout this litigation, avoiding providing disclosures

⁵¹ See [Doc. 121].

⁵² See [Doc. 136]. Coca-Cola originally filed its Motion for Summary Judgment on August 8, 2018. See [Doc. 133]. However, with the Court's permission, it withdrew that original filing and filed a new Motion Summary Judgment on August 9, 2018, due to difficulties in uploading documents to the Case Management/Electronic Case Files system. See [Doc. 137], [Doc. 138], and [Doc. 146].

⁵³ First Am. Compl. ¶¶ 11, 23.

⁵⁴ See [Doc. 148].

⁵⁵ See [Doc. 195].

that it was obligated to provide under the Federal Rules of Civil Procedure. The fact that Rothschild disclosed which claims it intended to assert *by e-mail*, after fact discovery ended, and one week before expert discovery was set to close, does not remedy the harms it caused through this gamesmanship. This gamesmanship is further evidenced by the fact that Rothschild waited until after Coca-Cola filed its Motion for Summary Judgment to file its First Amended Complaint, nearly four months after the Court granted leave to amend.

Rothschild argues that Coca-Cola knew what claims it was asserting.⁵⁶ Rothschild contends that the original Complaint asserted “at least” Claim 11, and that it later moved to amend to include allegations that Coca-Cola infringed Claims 11-13, 15, 17, 19, and 21-25.⁵⁷ Furthermore, Rothschild explains that, when requested, it responded to Coca-Cola’s counsel with the list of claims on the same day. On March 21, 2018, counsel for Rothschild responded to an email from Coca-Cola’s counsel, stating that Rothschild intended to assert the claims listed in its Proposed Amended Complaint, namely Claims 11, 12, 17, and 21-23 of the ‘377 Patent.⁵⁸ This was after two years of discovery: fact discovery had already closed, and only a week remained before Coca-Cola’s expert report on invalidity was due. Rothschild’s belated

⁵⁶ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 1-2.

⁵⁷ *Id.* at 1.

⁵⁸ [Doc. 138-6].

disclosure via email of the claims it intended to assert does not serve as an adequate substitution for response to interrogatories.

Rothschild also argues that a discovery motion, and not this Motion for Summary Judgment, would have been the appropriate vehicle for Coca-Cola to air its grievances. It argues that the summary judgment stage is not the appropriate time to raise these complaints, and that Coca-Cola should have moved the Court to compel Rothschild to produce adequate responses to its interrogatories.⁵⁹ Although a motion to compel would have been the most appropriate method for dealing with this dispute, the Court is not precluded from addressing these issues at the summary judgment stage. Rothschild cites *Cummings-Harris v. Kaiser Foundation Health Plan of Georgia, Inc.* in support of its contention.⁶⁰ However, *Cummings-Harris* weighs in Coca-Cola's favor. There, the defendant refused to respond to an interrogatory to which it was obligated to respond under Rule 26.⁶¹ The court noted that it is "textbook, 'Discovery 101' that a plaintiff cannot wait until after a summary judgment motion is filed by a defendant to complain that the defendant has failed to produce necessary discovery."⁶² Instead, a party in such a situation is expected

⁵⁹ Pl.'s Br. in Opp'n to Def.'s Mot. for Summ. J., at 2.

⁶⁰ *Cummings-Harris v. Kaiser Found. Health Plan of Ga, Inc.*, No. 1:12-cv-0984-JEC, 2013 WL 5350937 (N.D. Ga. Sept. 23, 2013).

⁶¹ *Id.* at *7.

⁶² *Id.*

to file a motion to compel prior to the filing of summary judgment motions.⁶³

However, the court did not rule in the defendant's favor. It noted that while "this Court would normally ignore the plaintiffs' excuses for their absence of evidence to counter the defendant's argument that plaintiffs have not proven their case," it "will not do so here."⁶⁴ It explained that "it is obvious that in a case alleging age discrimination, a defendant should provide the plaintiff with information regarding the ages of employees who were retained or hired to replace the plaintiff."⁶⁵ It further explained that "[c]learly, plaintiffs' counsel's failure to file an appropriate motion to compel was sloppy and amateurish. Yet, defendant's failure to produce this information hardly puts it in a better light."⁶⁶ Similarly, it is obvious in a patent infringement case that a plaintiff should provide the defendant with information relating to which claims it intends to assert. Coca-Cola's failure to file a motion to compel was unfortunate. Nonetheless, Rothschild's steadfast refusal to comply with its discovery obligations does not put it in a position to point fingers. "[D]eeply rooted in the common law tradition is the power of any court to manage its affairs."⁶⁷ Therefore, due to Rothschild's consistent refusal to identify the

⁶³ *Id.*

⁶⁴ *Id.* at *8.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Carlucci v. Piper Aircraft Corp.*, 775 F.2d 1440, 1447 (11th Cir.

dependent claims that it would assert, the Court will preclude it from asserting any of the dependent claims. Such a decision is within this Court's inherent authority to manage the affairs of its cases. Therefore, Coca-Cola is entitled to summary judgment as to Claims 12, 17, and 21-23.

Coca-Cola also argues that the Court should enter summary judgment as to Claim 11 because Rothschild's discovery responses as to that claim are also inadequate.⁶⁸ However, the Court will not enter summary judgment as to Claim 11 based upon these discovery complaints. It has been clear from the beginning of this action that Rothschild intended to assert independent Claim 11. Although Rothschild should have disclosed the basis for its contention that the Freestyle Dispenser infringes Claim 11, Coca-Cola likewise should have been more diligent in pursuing these contentions. Since Coca-Cola was aware that Claim 11 was being asserted, in contrast to the dependent claims, the Court will not enter summary judgment as to Claim 11 on this basis.

2. Claim 11

Next, Coca-Cola moves for summary judgment as to infringement of Claim 11. Claim 11 of the '377 Patent describes:

11. A beverage dispenser comprising:

at least one compartment containing an element of a beverage;

at least one valve coupling the at least one compartment to

1985) (internal quotations omitted).

⁶⁸ Def.'s Mot. for Summ. J., at 14.

a dispensing section configured to dispense the beverage;

a mixing chamber for mixing the beverage;

a user interface module configured to receive and[sic] identity of a user and an identifier of the beverage;

a communication module configured to transmit the identity of the user and the identifier of the beverage to a server over a network, receive user generated beverage product preferences based on the identity of the user and the identifier of the beverage from the server and communication the user generated beverage product preferences to controller; and

the controller coupled to the communication module and configured to actuate the at least one valve to control an amount of the element to be dispensed and to actuate the mixing chamber based on the user generated beverage product preferences.⁶⁹

According to Coca-Cola, Rothschild has failed to provide sufficient evidence that the Freestyle Dispenser has a “mixing chamber,” that it uses “valves,” that it has a “controller” that “actuates” the mixing chamber, that it has a “dispensing section,” and that it has a “user interface module” within the meaning of the claim language. Rothschild argues that the Court should not grant summary judgment as to infringement because a dispute of fact sufficient for jury consideration exists as to each of these issues. The Court will address each of these arguments in turn.

i. Mixing Chamber

Coca-Cola first argues that Rothschild has failed to show that the

⁶⁹ ‘377 Patent 9:43-63.

Freestyle Dispenser contains a “mixing chamber.” Claim 11 describes a beverage dispenser comprising “a mixing chamber for mixing the beverage.”⁷⁰ The Court construed “mixing chamber” to mean “an area where beverage elements are combined.”⁷¹ According to Coca-Cola, Rothschild has not shown that the Freestyle Dispenser contains an area where beverage elements are combined together.⁷² Instead, according to Coca-Cola, the beverage elements are not mixed together until they are outside of the dispenser – in mid-air below the nozzle.⁷³ Coca-Cola emphasizes that this distinction is important – it purposefully designed the mixing function this way to prevent flavors from lingering from one dispensed beverage to the next.⁷⁴ Thus, under this view, there is no mixing chamber in the Freestyle because the beverage elements are combined outside of the dispenser, in mid-air, and not inside some type of chamber in the Freestyle.

Rothschild, in response, argues that the Freestyle arguably has two

⁷⁰ ‘377 Patent 9:49.

⁷¹ Claim Construction Opinion and Order, at 11-12. The Court rejected Coca-Cola’s proposed construction that “mixing chamber” means “a component for holding and mechanically blending all of the elements required to produce the beverage, when actuated by the controller.” *Id.*

⁷² Def.’s Mot. for Summ. J., at 20.

⁷³ *Id.*

⁷⁴ *Id.*

“mixing chambers” within the meaning of the claim language.⁷⁵ First, Rothschild contends that a jury could conclude that the area in the Freestyle where carbonated water and high fructose corn syrup combine meets the requirements of a “mixing chamber.” Second, Rothschild argues that a jury could find that the area just outside the nozzle assembly, where the high fructose corn syrup and carbonated water (the macro-ingredients) meet the flavor ingredients (the micro-ingredients), is a mixing chamber within the meaning of Claim 11.⁷⁶ The Court agrees that a reasonable jury could find that either of these areas of the Freestyle Dispenser constitutes a “mixing chamber” within the meaning of the claim language.

First, Rothschild argues that the area in the nozzle assembly where carbonated water and high fructose corn syrup are mixed can be considered a “mixing chamber.”⁷⁷ In the Freestyle Dispenser, the carbonated water, high fructose corn syrup, and water are mixed in a circular enclosure inside the dispenser’s nozzle assembly.⁷⁸ These macro-ingredients are then dispensed through a finned extrusion in one large stream.⁷⁹ The finned extrusion is pictured here:

⁷⁵ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 4.

⁷⁶ *Id.*

⁷⁷ *Id.* at 4, 6-7.

⁷⁸ Pl.’s Statement of Material Facts ¶ 45.

⁷⁹ Curley Expert Report [Doc. 161-1] ¶ 53.



A ring of small nozzles surrounds the finned extrusion.⁸¹ These nozzles inject the flavor concentrates – the micro-ingredients – into the main stream at an angle.⁸² An injection of a micro-ingredient into stream of macro-ingredients is pictured here:



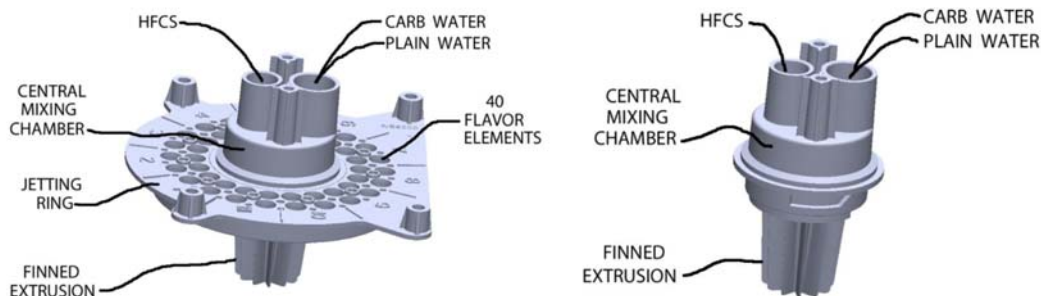
Curley, Rothschild's expert, provides the following graphic illustrations of the Freestyle's nozzle assembly:

⁸⁰ *Id.* ¶ 54.

⁸¹ *Id.* ¶ 53.

⁸² *Id.*

⁸³ *Id.* ¶ 54.



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Rothschild contends that this circular enclosure where the macro-ingredients combine constitutes a “mixing chamber.”⁸⁵

Coca-Cola argues that this area cannot constitute a “mixing chamber” because the macro-ingredients – water, carbonated water, and high fructose corn syrup – are not “elements” within the meaning of Claim 11. Thus, this area of the nozzle assembly would not be an area where “elements” of the beverage are combined.⁸⁶ Essentially, Coca-Cola argues that, under the claim language, an ingredient can only be an “element” of the beverage if it is contained in a “compartment.”⁸⁷ Under this theory, the macro-ingredients are not “elements” of a beverage because they are not contained in “compartments”

⁸⁴ The Court recognizes that Curley has labeled a component of this nozzle assembly as a “mixing chamber.” The Court realizes that this label does not determine whether the component is actually a “mixing chamber” within the meaning of the claim language. Nonetheless, the Court has included these graphics as helpful aids in its analysis.

⁸⁵ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 6.

⁸⁶ Def.’s Mot. for Summ. J., at 21-22.

⁸⁷ *Id.*

of the Freestyle as the micro-ingredients are.⁸⁸

However, this argument misconstrues the language of Claim 11. Claim 11 describes “at least one compartment containing an element of a beverage.”⁸⁹ This language does not provide that *every* element must be stored in a compartment. Instead, it merely provides that there must be at least one compartment that contains *an* element of a beverage. This language does not imply that, for an ingredient to be an element, it must be stored in a compartment.⁹⁰ Therefore, on its face, this argument fails to persuade the Court. Nothing in the claim language precludes a dispenser where some elements are stored in compartments and some elements are not, as long as there is at least one compartment that stores an element of the beverage.

Furthermore, even if this interpretation of the claim language were correct, a reasonable jury could conclude that the high fructose corn syrup is contained in a “compartment” of the Freestyle Dispenser. The parties did not dispute the meaning of the term “compartment” at the claim construction stage. Therefore, it should be given its plain and ordinary meaning.⁹¹ Coca-Cola argues that high fructose corn syrup is not contained in a “compartment”

⁸⁸ *Id.*

⁸⁹ ‘377 Patent 9:44-45.

⁹⁰ *Cf. Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999) (“Use of the phrase ‘at least one’ means that there could be only one or more than one.”).

⁹¹ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005).

of the Freestyle because it is “contained in a bag-in-box type container outside” of the dispenser.⁹² The high fructose corn syrup is stored in a bag-in-box carton that sits outside of the Freestyle Dispenser and is fed by tubing into the dispenser to create a beverage.⁹³ However, a reasonable jury could still conclude that this carton, while sitting outside of the casing of the dispenser, still “comprises” part of the beverage dispenser. The term “comprising” does not require each element to be physically inside of a single enclosure.⁹⁴ Instead, this language provides that the beverage dispenser must have all of these elements.⁹⁵ Thus, the compartments of the beverage dispenser envisioned by Claim 11 need not physically be in the casing of the dispenser. The fact that it is physically part of the dispenser is enough.⁹⁶ High fructose

⁹² Def.’s Mot. for Summ. J., at 21.

⁹³ Def.’s Statement of Material Facts ¶ 113.

⁹⁴ *See Server Tech., Inc. v. Am. Power Conversion Corp.*, 657 F. App’x 1030, 1034 (Fed. Cir. 2016) (“The district court incorrectly interpreted the term ‘comprising’ in claim 15 of the ‘543 patent to require that all six elements must be contained inside a single enclosure.”).

⁹⁵ *See id.* (“The use of the word ‘comprising’ only means that the plugstrip must have at least all six of the claimed elements, but not that all six elements must be contained in a single enclosure.”).

⁹⁶ This conclusion is not inconsistent with the Court’s claim construction ruling, in which it determined that a dispenser “comprised” of elements is “most naturally read to be physically made up of these different parts.” Claim Construction Opinion and Order, at 14. A component that is not inside of the casing of the dispenser, but nonetheless sits immediately outside of the dispenser and is connected by tubing – such as the bag-in-a-box carton of high fructose corn syrup – could reasonably be considered a physical component of the apparatus.

corn syrup would nonetheless still be considered an “element” under this rigid construction. Because of this, a reasonable jury could conclude that the area within the nozzle assembly of the Freestyle, where the macro-ingredients mix, is a “mixing chamber.”

Second, Rothschild argues that the mid-air area outside of the nozzle assembly, where the macro-ingredients (water, carbonated water, and high fructose corn syrup) and micro-ingredients (flavor elements) are mixed, is a mixing chamber.⁹⁷ Rothschild contends that this area outside of the dispenser’s nozzle is “an area where beverage elements are combined,” and the fact that it is outside of the casing of the dispenser is irrelevant. Rothschild emphasizes that this combination of macro-ingredients and micro-ingredients occurs in a concavity of the dispenser, and it does not matter that it happens mid-air. Curley, Rothschild’s expert, explains that this “hollow portion” of the Freestyle Dispenser’s cabinet is referred to as the “ellipse,” and opines that it is an area of the dispenser.⁹⁸ He further asserts that the “entire assembly” of a finned extrusion mounted on the macro-ingredient chamber, with jet streams for the micro-ingredients, constitutes a “mixing chamber” within the meaning of the claim construction.⁹⁹

Coca-Cola responds that this cannot constitute a “mixing chamber” as a

⁹⁷ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 5.

⁹⁸ Curley Expert Report [Doc. 161-1] ¶ 24.

⁹⁹ *Id.* ¶ 60.

matter of law. It argues that there is no area in the Freestyle where beverage elements are combined. Instead, the beverage elements are combined mid-air, above the user's cup, not in an area of the dispenser. Thus, according to Coca-Cola, it cannot have a mixing chamber.¹⁰⁰ Coca-Cola relies upon the declaration of its expert, Wolski, for this proposition. In this declaration, Wolski contends that the "[m]icro-ingredients are not mixed within the Freestyle dispenser, they are mixed after leaving the dispenser's nozzle assembly, both in the air and in a Freestyle user's cup."¹⁰¹

The Court agrees with Rothschild that question of fact exists as to this issue. A reasonable jury could conclude that the mid-air area below the nozzle assembly and above the user's cup, where the micro-ingredient flavor elements mix with the macro-ingredients, is an area where "beverage elements are combined." As Rothschild points out, a user places his or her cup in a concavity of the dispenser, below the nozzle assembly, and the beverage elements combine mid-air in this concavity before reaching the user's cup. A jury could reasonably conclude this mid-air concavity, where the cup is placed and where the drink elements combine, is a "mixing chamber" within the meaning of Claim 11. Both Coca-Cola and Rothschild provide sufficient evidence, in the form of expert witnesses, that support their infringement arguments as to the "mixing chamber" element.

¹⁰⁰ Def.'s Mot. for Summ. J., at 20.

¹⁰¹ Wolski Decl. [Doc. 138-31] ¶ 20.

Coca-Cola’s non-infringement argument is essentially a repackaging of its claim construction arguments. At the claim construction stage, the Court rejected Coca-Cola’s proposed construction that the mixing chamber must be an area where the elements are held and mechanically blended.¹⁰² The Court explained that Coca-Cola’s proposed construction “would preclude a mixing chamber that mixes the elements as they pass through the chamber without being held” and concluded that, “[s]ince this limitation is not present in the claim, a construction requiring the mixing chamber to ‘hold’ the elements is improper.”¹⁰³ Coca-Cola’s present argument that there must be some kind of discrete area where the beverage elements are combined to meet this claim limitation uses the same logic as its rejected claim construction.

Coca-Cola then argues that the Freestyle does not have a “mixing chamber” within the meaning of Claim 11 because it does not have a “controller” that “actuates” the mixing chamber responsive to the user’s product preferences.¹⁰⁴ Claim 11 states that the “controller” is “coupled to the communication module” and configured “to actuate the mixing chamber based on the user gene[r]ated beverage product preferences.”¹⁰⁵ The Court construed this claim language to mean “capable of causing the mixing chamber to mix a

¹⁰² Claim Construction Opinion and Order, at 12.

¹⁰³ *Id.*

¹⁰⁴ Def.’s Mot. for Summ. J., at 24.

¹⁰⁵ ‘377 Patent 9:59-63.

beverage responsive to user's beverage product preference.”¹⁰⁶ According to Coca-Cola, the Freestyle does not meet this limitation because “responsive” modifies “mix,” and the purported mixing chamber identified by Rothschild's expert does not physically change the manner in which it mixes based upon the user's product preferences. Thus, the mixing chamber is not “responsive” to the product preferences because the “mixing” function always operates the same way. The Court is not persuaded by this contorted interpretation of the claim language. The parties did not propose construction of the term “responsive.” Therefore, it is given its plain and ordinary meaning. A person of ordinary skill in the art could, and most likely would, read this claim language to mean that the mixing chamber works to produce a beverage that is responsive to the user's product preferences – not that the mixing chamber mixes the beverage in some specific way that is responsive to the preferences of the user.

ii. Dispensing Section

Next, Coca-Cola contends that the Freestyle Dispenser does not contain a “dispensing section” as required by Claim 11. The claim describes a “dispensing section configured to dispense the beverage.”¹⁰⁷ The Court construed “dispensing section” to mean “a component for directing the flow of

¹⁰⁶ Claim Construction Opinion and Order, at 24-25.

¹⁰⁷ '377 Patent 9:47-48.

a beverage.”¹⁰⁸ At the claim construction stage, the Court acknowledged that the specification of the ‘377 Patent envisioned multiple versions of the dispensing section: one that mixes the beverage itself, and another where the beverage has already been mixed before it enters the dispensing section.¹⁰⁹ Coca-Cola now argues that the Freestyle Dispenser does not contain a dispensing section because no physical component of the dispenser forms or releases a beverage.¹¹⁰ Thus, since no beverage is formed in the machine, it cannot contain a dispensing section because it does not have a component for directing the flow of a “beverage.”¹¹¹ Similar to its argument regarding the “mixing chamber,” Coca-Cola emphasizes that the Freestyle Dispenser utilizes an “air-mix” technology, where the machine dispenses unmixed micro-ingredients that combine in mid-air with the mixed macro-ingredients. Therefore, according to Coca-Cola, it is impossible for the Freestyle to contain a “component for directing the flow of a beverage” because no beverage exists in any physical part of the machine.¹¹²

However, a reasonable jury could conclude that the Freestyle Dispenser

¹⁰⁸ Claim Construction Opinion and Order, at 8-11. In doing so, the Court rejected Coca-Cola’s proposed construction that “dispensing section” means “a component for directing the flow of a mixed beverage.” *Id.* at 8-9.

¹⁰⁹ *Id.*

¹¹⁰ Def.’s Mot. for Summ. J., at 25-26.

¹¹¹ *Id.* at 26.

¹¹² *Id.*

meets the “dispensing section” limitation. Coca-Cola’s argument implies that a “dispensing section” can only exist if it dispenses an already-mixed beverage. However, a reasonable jury could conclude that a component that dispenses various elements of a beverage into a stream, creating a beverage, is a “component for directing the flow of a beverage.” Coca-Cola is attempting to relitigate the Court’s claim construction ruling. The Court noted in its Claim Construction Opinion and Order that “[e]ssentially, the parties dispute whether the beverage must have been mixed before entering the dispensing section, or whether it can be mixed in the dispensing section.”¹¹³ Coca-Cola argued, and the Court disagreed, that the “mixing chamber” and the “dispensing section” must be separate components.¹¹⁴ The Court, in rejecting Coca-Cola’s proposed construction that the dispensing section is a component for directing the flow of a *mixed* beverage, concluded that the ‘377 Patent covered dispensers in which the dispensing section itself mixes the elements of the beverage. A reasonable jury could find that the Freestyle contains a component that directs the flow of a beverage, whether mixed or unmixed.¹¹⁵

¹¹³ Claim Construction Opinion and Order, at 9.

¹¹⁴ *Id.* at 10-11.

¹¹⁵ Furthermore, Rothschild correctly points out that Coca-Cola’s argument is belied by the fact that some beverages dispensed from the machine may contain only combinations of water, carbonated water, or high fructose corn syrup. Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 19. Thus, even if Coca-Cola were correct that a dispensing section can *only* dispense a mixed beverage, the Freestyle Dispenser would still meet this element. In such a situation, the Freestyle would be dispensing a mixed beverage.

Furthermore, Coca-Cola's expert report on non-infringement does not address whether the Freestyle Dispenser has a "dispensing section." In fact, in support of his opinion that the Freestyle contains pumps and not valves, Coca-Cola's expert explains that the "micro-ingredient pumps connecting the QPM modules and the dispensing section are positive displacement pumps, meaning they simultaneously produce and control the flow, and therefore do not require a valve."¹¹⁶ This statement is not dispositive as to whether the Freestyle Dispenser contains a "dispensing section" within the specific meaning of the claim language. However, it weighs in favor of denying summary judgment because it shows that a reasonable jury could find that the Freestyle contains a dispensing section.

iii. Valves

Next, Coca-Cola argues that the Freestyle Dispenser does not infringe Claim 11 because it does not use "valves."¹¹⁷ Claim 11 provides for a beverage dispenser comprising "at least one valve coupling the at least one compartment to a dispensing section configured to dispense the beverage."¹¹⁸ It further requires that the controller actuate such valves "to control an amount of the element to be dispensed."¹¹⁹ The parties agreed at the claim construction stage

¹¹⁶ Wolski Expert Report [Doc. 138-20] ¶ 78.

¹¹⁷ Def.'s Mot. for Summ. J., at 23.

¹¹⁸ '377 Patent 9:46-48.

¹¹⁹ *Id.* 9:59-61.

that the term “valve” should be given its plain and ordinary meaning.¹²⁰ Coca-Cola makes two arguments with regards to the “valve” element.

First, Coca-Cola argues that the micro-ingredients – the flavor ingredients added to the mixture of carbonated water, water, and high fructose corn syrup – are not dispensed by valves.¹²¹ Instead, according to Coca-Cola, these elements of the beverage are dispensed by pumps.¹²² Wolski, Coca-Cola’s expert, explains that the Freestyle Dispenser uses “Quad Pump Modules” (“QPMs”) to dispense precise amounts of micro-ingredients, and that these QPMs are pumps, not valves.¹²³ In his expert report, Wolski states that the Freestyle does not use valves to “propel or control the flow of the micro-ingredients or the non-nutritive sweetener.”¹²⁴ He explains that the QPMs are “are positive displacement pumps, meaning they simultaneously produce and control the flow, and therefore do not require a valve.”¹²⁵ He further opines that the micro-ingredients will not flow at all unless the positive displacement pumps are activated, unlike liquids requiring a valve, which would flow

¹²⁰ Claim Construction Opinion and Order, at 1 n.1.

¹²¹ Def.’s Mot. for Summ. J., at 27.

¹²² *Id.*

¹²³ Wolski Decl. [Doc. 138-31] ¶¶ 29, 31-32.

¹²⁴ Wolski Expert Report [Doc. 138-20] ¶ 77.

¹²⁵ *Id.* ¶ 78.

unceasingly absent the use of a valve.¹²⁶ As an example of this difference, Wolski compares the macro-ingredients, which use valves, with the micro-ingredients, which use these positive displacement pumps.¹²⁷

In contrast, Rothschild argues that the Freestyle Dispenser uses “passive valves” to control the flow of the micro-ingredients.¹²⁸ Citing its expert report, Rothschild contends that the Freestyle uses passive valves similar to technology used in inkjet printers.¹²⁹ Rothschild argues that the micro-ingredients, which are contained in collapsible bladders within cartridges, are controlled by the manipulation of relative pressures between the bladder and the surrounding air.¹³⁰ Curley, Rothschild’s expert, explains that this technology is known as a “passive valve” in the inkjet field.¹³¹ With this technology, a meniscus of the micro-ingredient fluid exists at the jet orifice.¹³² Negative pressure from the collapsible bladder, positive pressure from the micropump, and capillarity are used to precisely manipulate the

¹²⁶ *Id.*

¹²⁷ *Id.* ¶ 79.

¹²⁸ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 11.

¹²⁹ *Id.* at 11-12.

¹³⁰ *Id.* at 12.

¹³¹ Curley Rebuttal Report [Doc. 161-3] ¶ 37.

¹³² *Id.* ¶ 44.

pressure of the meniscus of micro-ingredient fluid at the tip of the jet.¹³³ This manipulation of meniscus pressure from negative to positive results in a controlled stream of droplets of micro-ingredient.¹³⁴ Curley argues that this “valving action” created by this use of pressure would be considered a “passive valve” by a person of ordinary skill in the art.

The Court agrees that a question of fact for a jury to resolve exists as to this issue. Rothschild has presented sufficient evidence, via its expert reports and declarations, that an ordinary person of skill in the art would consider the technology used by the Freestyle Dispenser to control the flow of the micro-ingredients to be “valves.” Based upon Curley’s declarations and expert reports, a reasonable jury could conclude that the “valving action” created by the manipulation of positive and negative pressures constitutes a “valve” within the meaning of the claim language. And, on the other hand, Coca-Cola has provided evidence both criticizing Rothschild’s expert and providing an opinion that the Freestyle uses positive displacement pump technology, distinct from valve technology, which a person of ordinary skill in the art would not consider to be a “valve.” This dispute of fact is appropriate for resolution by a jury.¹³⁵

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ Furthermore, Curley does not admit that a “valve” and a “pump” are different, as Coca-Cola contends. *See* Def.’s Mot. for Summ. J., at 24. Instead, in his deposition testimony, Curley explained that the meniscal valve, which is self-closing, needs positive pressure to open. Curley Dep. [Doc. 138-

Second, the Court agrees with Rothschild that a reasonable jury could conclude that some of the macro-ingredients, which Coca-Cola admits are dispensed by valves, are elements within the meaning of the claim. Claim 11 states that the beverage dispenser comprises, among other things, “at least one compartment containing an element of a beverage” and “at least one valve coupling the at least one compartment to a dispensing section configured to dispense the beverage.”¹³⁶ According to Coca-Cola, the valves used with the macro-ingredients do not meet this limitation because these macro-ingredients are not “elements” stored in a “compartment.”¹³⁷ However, as explained above with regard to the “mixing chamber” element, a reasonable jury could conclude that the high fructose corn syrup is stored in a “compartment.” Even though the bag-in-box container of high fructose corn syrup sits outside the casing of the Freestyle Dispenser, it is still physically connected to the dispenser. A reasonable jury could conclude that this is a “compartment” that “comprises” part of the beverage dispenser. Thus, a jury could conclude that high fructose corn syrup is an “element” of the beverage, that it is contained in a “compartment” of the beverage dispenser, and that it is coupled to the

17], at 158:9-15. Micropumps provide this positive pressure. *Id.* at 158:11-14. Essentially, he argues that the pump provides a means for opening and closing the valve. *Id.* at 158:9-10, 158:21-23. This testimony does not concede that the Freestyle uses a pump, as opposed to a “valve,” within the meaning of the claim language.

¹³⁶ ‘377 Patent 9:44-48.

¹³⁷ Def.’s Mot. for Summ. J., at 28.

dispensing section by a valve. Therefore, Coca-Cola is not entitled to summary judgment on this issue.

iv. “User Interface Module”

Next, Coca-Cola argues that the Freestyle Dispenser has no “user interface module.” Claim 11 describes “a user interface module configured to receive an[] identity of a user and an identifier of the beverage.”¹³⁸ The Court construed this to mean “a component of the beverage dispenser that enables direct communication between a user and the dispenser.”¹³⁹ In doing so, the Court rejected Rothschild’s proposed construction that this claim language means “a component that enables communication between a user and a dispenser.”¹⁴⁰ The Court, in coming to this determination, noted that the intrinsic evidence in the ‘377 Patent suggested that the user interface module should physically be a part of the beverage dispenser.¹⁴¹

Coca-Cola argues that the Freestyle Dispenser does not meet this requirement because users transmit their identity and beverage preferences to the Freestyle Dispenser through the Freestyle Mobile Application (the “Freestyle App”) on a cellular phone.¹⁴² According to Coca-Cola, this does not

¹³⁸ ‘377 Patent, 9:50-51.

¹³⁹ Claim Construction Opinion and Order, at 14.

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 13-14.

¹⁴² Def.’s Mot. for Summ. J., at 29-30.

constitute “direct communication” as the Court’s claim construction envisions. Instead of communicating directly with the Freestyle, according to Coca-Cola, a user employs the Freestyle App on his or her cellular phone, which communicates over the cellular telephone network, to Coca-Cola’s server, and then to the Freestyle Dispenser.¹⁴³ Coca-Cola stresses that Rothschild’s infringement allegations rely upon the use of the Freestyle App with the Freestyle Dispenser.¹⁴⁴ In the First Amended Complaint, Rothschild alleges: that the Freestyle Dispenser “is equipped with cellular data cards or hard-line network connection, allowing communication between the dispenser and [Coca-Cola’s] network, including [Coca-Cola’s] servers”;¹⁴⁵ that the Freestyle Dispensers “are monitored by [Coca-Cola], and [Coca-Cola’s] servers are in communication with each dispenser”;¹⁴⁶ that Coca-Cola “makes and markets the [Coca-Cola] Freestyle mobile application”;¹⁴⁷ that “[t]he new ‘Create Your Own Mix’ feature on the Freestyle app lets fans save custom combination using Freestyle’s over 100 drink options”;¹⁴⁸ that “[w]ith smartphone in hand, users can scan the app at a participating machine, which will in turn pour their very

¹⁴³ *Id.* at 30-31.

¹⁴⁴ *Id.* at 29.

¹⁴⁵ First Am. Compl. ¶ 15.

¹⁴⁶ *Id.* ¶ 16.

¹⁴⁷ *Id.* ¶ 18.

¹⁴⁸ *Id.*

own creations”;¹⁴⁹ and that Coca-Cola’s “mobile app servers are in constant communication with the Freestyle dispensers, and are capable of transmitting and receiving user identifiers, as well as identifiers of a beverage.”¹⁵⁰ Overall, Rothschild alleges that this is a user interface module that enables communication between a user and the dispenser.¹⁵¹

Rothschild argues that the Freestyle Dispenser meets the “user interface module” element in multiple ways. First, Rothschild argues that the Freestyle’s touchscreen module meets the “user interface module” element of Claim 11.¹⁵² The Freestyle Dispenser utilizes a touchscreen surface called the “Blister.”¹⁵³ The Blister touchscreen surface displays a variety of drink choices and allows a user to scroll through those choices in search of a desired beverage.¹⁵⁴ Generally, a user is presented with a main menu containing multiple icons representing groups of beverages, such as “Coca-Cola” or “Sprite.”¹⁵⁵ After touching one of those icons, a user is presented with

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* ¶ 19.

¹⁵¹ *Id.*

¹⁵² Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 23-24.

¹⁵³ Curley Expert Report [Doc. 161-1] ¶ 81.

¹⁵⁴ *Id.* ¶ 83.

¹⁵⁵ *Id.* ¶ 84.

subgroups of beverage choices.¹⁵⁶ For example, after touching the “Coca-Cola” icon, a user is presented with more specific “Coca-Cola” options, such as regular “Coca-Cola,” “Coca-Cola” with cherry, and so on.¹⁵⁷ The Blister touchscreen can also display a Quick Read code (a “QR Code”) that can be utilized with the Freestyle App.¹⁵⁸ A user can use the Freestyle App on his or her phone to scan the QR Code. Thus, according to Rothschild, the Blister touchscreen constitutes a form of direct communication between the user and the dispenser.¹⁵⁹

However, Rothschild’s argument takes the Court’s construction out of context. Claim 11 describes a “user interface module” that receives an “identity of a user and an identifier of the beverage.”¹⁶⁰ The “user interface module” requirement is not satisfied by *any* component that enables direct communication between the user and the dispenser. Instead, the direct communication must include the user’s identity and the beverage identifiers.¹⁶¹ This is because the claim describes the module as configured to receive an identity of a user and an identifier of the beverage. Rothschild has

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ *Id.* ¶ 85.

¹⁵⁹ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 23-24.

¹⁶⁰ ‘377 Patent 9:50-51.

¹⁶¹ *Id.*

not provided evidence that the Freestyle Dispenser permits a user to provide his or her identity and beverage identifiers via the Blister touchscreen. Instead, the evidence establishes that a user can use the touchscreen to choose a drink from a pre-selected list of beverage options. This function does not meet the “user interface module” element of Claim 11 because it does not communicate an identity of the user and an identifier of the beverage.¹⁶² This important distinction is highlighted by Rothschild’s infringement theory in the First Amended Complaint. Rothschild’s theory of infringement relies upon the use of the Freestyle Dispenser in conjunction with the Freestyle App, and not just any use of the Freestyle Dispenser as a soda fountain.

Rothschild then argues that the claim language does not require that *all* communications between the user and the dispenser be direct.¹⁶³ This is true. Such a reading would be overly restrictive. Nonetheless, Rothschild still must show that there is some form of direct communication between the user and the dispenser whereby the user communicates his or her identity and beverage identifier. Here, Rothschild has not shown that a user can input his or her identity and beverage identifier by utilizing the Blister touchscreen. Instead, it has only shown that a user can select a pre-determined beverage, such as Coca-Cola with vanilla, by scrolling through menu pages on the touchscreen. Even assuming the ‘377 Patent allows for some forms of indirect

¹⁶² *Id.*

¹⁶³ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 25.

communication, Rothschild has not shown that it meets this construction of the claim language. While physically touching the Freestyle's touchscreen interface is undoubtedly a form of "direct communication," it is not the type of direct communication that the '377 Patent envisions. The '377 Patent describes a user interface module configured to receive the identity of the user and an identifier of the beverage.¹⁶⁴ Rothschild has not shown that the Freestyle Dispenser receives the identity of the user or the identifier of the beverage through the touchscreen interface on the dispenser. Instead, Rothschild has only shown that the touchscreen is used to select ordinary, pre-determined drink options, such as Cherry Coca-Cola. The use of the Freestyle in this manner is not the basis of Rothschild's infringement allegations.

Rothschild then argues that communications over a cellular network constitute "direct communication."¹⁶⁵ According to Rothschild, a user can communicate with the dispenser via the internet by using the Freestyle App on a cellular telephone, and that this is a form of direct communication.¹⁶⁶ In support of this argument, Rothschild cites the report of Curley, its expert.¹⁶⁷ In his report, Curley describes personally using the Freestyle App to dispense a personalized beverage, discusses the development of this mobile application,

¹⁶⁴ '377 Patent 9:50-51.

¹⁶⁵ Pl.'s Br. in Opp'n to Def.'s Mot. for Summ. J., 25-26.

¹⁶⁶ *Id.* at 25.

¹⁶⁷ *Id.*

and concludes that this is direct communication.¹⁶⁸ Curley argues that “[c]ellular communications are a form of direct communication.”¹⁶⁹ He explains that “[i]f I call you on my cell phone, and you answer, we are speaking directly. That is direct communication.”¹⁷⁰ However, even taking Curley’s opinion into account, a reasonable jury would not be able to conclude that communications over a cellular network to the dispenser are “direct.” As explained in more detail below, the intrinsic evidence of the ‘377 Patent supports the conclusion that communications that go through a cellular network, to a server, and then to a dispenser are not “direct” communications. Thus, given this language in the ‘377 Patent, a reasonable jury would not conclude that cellular communications are direct based merely upon Curley’s conclusory assertion that cellular communications are “direct.”

Curley also argues that there is no definition of “direct communication” in the Claim Construction Opinion and Order, and that those of ordinary skill in the art would understand “direct communication” to include cellular, WiFi, and internet communications.¹⁷¹ However, the Claim Construction Opinion and Order does provide insight into the distinction between “direct” and other forms of communication. In contrast to the user interface module, the ‘377

¹⁶⁸ Curley Expert Report [Doc. 161-1] ¶¶ 99-124.

¹⁶⁹ Curley Rebuttal Report [Doc. 138-18] ¶ 52.

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

Patent describes the “communications module,” which enables communication between the dispenser and a server over the network.¹⁷² The Court construed “communication module” to mean a “component of the beverage dispenser that enables communication between the dispenser and a server.”¹⁷³ This communication to a server, which would be over a network of some kind, was not construed by the Court to be “direct communication.” Thus, the distinction between “direct communications” and other communications is apparent from this construction. Communications over a network, such as those between the “communication module” and a server on the network, are merely “communications,” and not “direct communications.” Any other reading of this would render the Court’s construction of a “direct communication” to be superfluous, because any form of communication could then be considered “direct.”

Rothschild also emphasizes certain language in the claim’s specification and the Court’s Claim Construction Opinion and Order, arguing that “user interface module” includes a broader spectrum of communications than Coca-Cola claims. In the Claim Construction Opinion and Order, the Court concluded that “user interface module” should be defined as “a component of the beverage dispenser that enables direct communication between a user and

¹⁷² ‘377 Patent 9:52-58.

¹⁷³ Claim Construction Opinion and Order, at 20-21.

the dispenser.”¹⁷⁴ In doing so, the Court noted that this is so because the user interface module must “physically be a component of the beverage dispenser.”¹⁷⁵ The Court also acknowledged certain broad language in the specification. The specification of the ‘377 Patent provides that communications with the user interface module “may be in the form of a keyboard, magnetic reader, voice recognition, WiFi™ communication (b, d, g, n, etc.), RFID communications, infrared communication, Bluetooth™, or any other type of communication now known or practiced in the future that will allow the user to identify themselves to the beverage dispenser.”¹⁷⁶ From this, Rothschild contends that any communication meets the claim element, as long as the user interface module is physically part of the dispenser.¹⁷⁷ Rothschild also stresses the Court’s explanation in the Claim Construction Opinion and Order that “[a]lthough this language is broad, it should be interpreted as envisioning any possible form of communication between the user and the user interface module which is physically part of the dispenser.”¹⁷⁸

However, these arguments distort both the Court’s ruling and the examples provided by the specification. The Court concluded that these

¹⁷⁴ Claim Construction Opinion and Order, at 13-14.

¹⁷⁵ *Id.* at 14.

¹⁷⁶ ‘377 Patent 7:43-49.

¹⁷⁷ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 26-27.

¹⁷⁸ Claim Construction Opinion and Order, at 16.

communications must be direct *because* the user interface module must physically be part of the beverage dispenser. The Court noted that this can include any form communication that would allow a user to *directly* communicate with a user interface module that is physically part of the beverage dispenser. The Court did not conclude that any communications, no matter how indirect, suffice as long as the user interface module is physically part of the beverage dispenser. Instead, this was part of the reasoning for concluding that the communications must be “direct.”

The language of the specification further supports this conclusion. When taken out of context, the specification language quoted above seems to support Rothschild’s contention that an interface module that uses any form of communications technology imaginable would constitute a “user interface module.” However, the context of this language shows that this is not true. The specification explains that a user will communicate his or her identity and beverage identifier to the user interface module of the beverage dispenser. The dispenser *then* uses its communication module to communicate this identity to the server to find beverage product preferences stored on the server. The server *then* communicates this information back to the dispenser to dispense a beverage based upon those preferences.¹⁷⁹ Unlike with this dispenser envisioned by the specification, the Freestyle user provides his or her identity first to the Freestyle App on his or her phone, not to the dispenser. The mobile

¹⁷⁹ ‘377 Patent 7:56-8:28

application *then* communicates this information to the server, which *then* communicates the user's identity and beverage preferences, for the first time, to the dispenser. Thus, this process is starkly different from the process described in the specification.¹⁸⁰

This distinction is further bolstered by other language in the specification. The specification describes several ways that a user would directly communicate his or her identity to the user interface module, which is physically part of the dispenser. This identity can be communicated, for example, by an RFID card, on a magnetic swipe card, or by a code that is wirelessly transferred from a cellular phone or mobile device when such a device "is *within range* of the dispenser."¹⁸¹ It then explains that communications may be in the form of a keyboard, magnetic reader, voice recognition, WiFi communication, RFID communication, Bluetooth, or any other type of communication that may in the future be practiced. However, given the previous descriptions of the user interface module, it becomes clear that these are *direct* communications with the dispenser, and not communications over the Internet, cellular network, or some other network.

¹⁸⁰ The Court recognizes that it cannot read limitations into the claim from the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005). Here, however, the Court is not reading a limitation into Claim 11 from the preferred embodiments described in the specification. Instead, it is explaining how Rothschild's reliance on language from the specification in support of its argument for a broader construction is misplaced.

¹⁸¹ '377 Patent 7:31-38 (emphasis added).

Thus, a user could use Bluetooth technology to communicate directly with the dispenser, or a local WiFi network to communicate directly with it. However, communications over the cellular network to a server would *not* be direct. This conclusion is buttressed by the specification's explanation that the "communications module," and *not* the "user interface module," couples the dispenser to the Internet.¹⁸² Contrary to Rothschild's assertion, this language in the patent does not support its argument that "direct communication" includes *any* communication with a user interface module as long as that module is physically part of the dispenser.¹⁸³ Thus, despite Rothschild's protestations, the Court's construction of "user interface module" was correct. Rothschild's attempt to relitigate the Court's claim construction ruling is unpersuasive.

Furthermore, even if Rothschild were correct, its argument would still fail. Rothschild contends that, under the Court's construction of this phrase, it

¹⁸² '377 Patent 6:57-60.

¹⁸³ Curley, Rothschild's expert, also describes the use of RFID communications in the Freestyle Dispenser. *See* Curley Expert Report [Doc. 161-1], at ¶¶ 88-98. Rothschild does not rely upon the use of this RFID technology as a means of infringement in its First Amended Complaint or in its brief. Nonetheless, even if it did, the Court would find that the use of RFID technology in the Freestyle Dispenser does not meet the "user interface module" element of Claim 11. With this technology, a user has a special cup with RFID tags embedded in the cup. *Id.* ¶¶ 89-90. The dispenser uses RFID tracking capabilities to limit the amount of time between beverage refills, to ensure that a user is entitled to a refill, to limit the number of refills a user can have, and so on. *Id.* ¶¶ 91-92. Rothschild does not argue that the Freestyle uses this RFID technology to associate a user and his or her beverage preferences to the dispenser.

only matters if the user interface module is physically part of the beverage dispenser, and not whether there is direct communication with that user interface module. However, even if this is true, Rothschild has not shown that the Freestyle has a component, that is physically part of the dispenser, that the user interacts with to input his or her identity and beverage preferences. Instead, Rothschild has shown that the user interacts with the Freestyle App, which then sends information over the cellular network to Coca-Cola's servers, which communicate the user's product preferences to the dispenser. The Freestyle App is not a physical component of the dispenser – it is part of the user's mobile phone. Moreover, the communication from the server to the dispenser would most naturally be read to be via the dispenser's "communication module," and not the user interface module. Therefore, this argument is likewise unpersuasive.

Finally, Rothschild dedicates multiple pages of its brief arguing that the word "direct" in the claim construction is not that important, and that Coca-Cola "belated[ly] and surreptitious[ly]" slipped the word "direct" into its proposed claim construction at the last minute.¹⁸⁴ However, despite Rothschild's beliefs to the contrary, the Court was not "tricked" by Coca-Cola. The Court came to its claim construction rulings by reviewing the arguments made by the parties and the intrinsic and extrinsic evidence relating to the '377 Patent. Rothschild is obviously unhappy with the Court's construction of

¹⁸⁴ Pl.'s Br. in Opp'n to Def.'s Mot. for Summ. J., at 29-31.

the phrase “user interface module.” And although Rothschild may have had a colorable argument for including more indirect communications within the gambit of this construction, the Court concluded that the construction proposed by Coca-Cola was most appropriate based upon the intrinsic evidence in the ‘377 Patent. Therefore, since Rothschild has failed to show that the Freestyle Dispenser contains a “user interface module,” Coca-Cola is entitled to summary judgment as to infringement of Claim 11.¹⁸⁵

B. Invalidity

Next, Coca-Cola moves for summary judgment as to the invalidity of the ‘377 Patent.¹⁸⁶ Specifically, Coca-Cola argues that the ‘377 Patent is invalid as anticipated by prior art, and that it is invalid as obvious. It also argues that Rothschild’s expert is not qualified to provide an opinion as to invalidity. A patent is presumed to be valid under 35 U.S.C. § 282.¹⁸⁷ Furthermore, “[e]ach claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though

¹⁸⁵ *Cephalon, Inc. v. Watson Pharm., Inc.*, 707 F.3d 1330, 1340 (Fed. Cir. 2013) (“If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law.”).

¹⁸⁶ Def.’s Mot. for Summ. J., at 31.

¹⁸⁷ 35 U.S.C. § 282(a); *see also Dana Corp. v. Am. Axle & Mfg., Inc.*, 279 F.3d 1372, 1375 (Fed. Cir. 2002).

dependent upon an invalid claim.”¹⁸⁸ “[T]his presumption can only be overcome by clear and convincing evidence of facts to the contrary.”¹⁸⁹ “Anticipation under 35 U.S.C. § 102 is a question of fact, while obviousness under § 103 is a question of law based on underlying findings of fact.”¹⁹⁰ The Court addresses each of these in turn.

1. Invalid as Anticipated

Coca-Cola first argues that the ‘377 Patent is invalid as anticipated by prior art. “A patent claim is anticipated if a single prior art reference expressly or inherently discloses every limitation of the claim.”¹⁹¹ “A patent claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”¹⁹² “Anticipation challenges under § 102 must focus only on the limitations actually recited in the claims.”¹⁹³ Whether a prior art reference discloses a

¹⁸⁸ 35 U.S.C. § 282(a).

¹⁸⁹ *Dana Corp.*, 279 F.3d at 1375.

¹⁹⁰ *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015) (citing *Flo Healthcare Sols., LLC v. Kappos*, 697 F.3d 1367, 1375 (Fed. Cir. 2012)).

¹⁹¹ *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1252 (Fed. Cir. 2014).

¹⁹² *SRI Int’l v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1192 (Fed. Cir. 2008) (quoting *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987)).

¹⁹³ *DDR Holdings*, 773 F.3d at 1252.

limitation is a question of fact.¹⁹⁴

i. Rothschild's Expert Opinion

First, Coca-Cola argues that Rothschild's expert, Dr. Curley, has not provided a proper expert rebuttal report in response to Coca-Cola's expert report on invalidity. Specifically, Coca-Cola contends that Curley's analysis is deficient because it does not provide a claim-by-claim analysis of anticipation.¹⁹⁵ Because of this, according to Coca-Cola, Rothschild has failed to rebut Coca-Cola's prima facie case of invalidity, and Coca-Cola is entitled to summary judgment. Rothschild admits that its expert report does not contain a claim-by-claim analysis, and instead argues that Coca-Cola confuses the burden imposed on each party under this analysis. Rothschild contends that it need only show that a genuine dispute of material fact exists as to whether a single claim element is absent in the prior art. The Court agrees that Rothschild is not obligated to provide a claim-by-claim analysis to defeat a claim of invalidity.

The case that Coca-Cola relies upon for this proposition, *Commissariat à L'énergie Atomique v. Samsung Electronics Co.*, does not conclude otherwise.¹⁹⁶ In *Commissariat*, the court noted that the plaintiff "did not

¹⁹⁴ *Id.*

¹⁹⁵ Def.'s Mot. for Summ. J., at 34-36.

¹⁹⁶ *Commissariat à L'énergie Atomique v. Samsung Elecs. Co.*, 524 F. Supp. 2d 520 (D. Del. 2007).

directly respond to the element-by-element anticipation analysis presented in Samsung’s opening brief” and instead made “several general arguments” as to why the prior art did not anticipate the patent at issue in that case.¹⁹⁷ The court explained that the defendant bears the burden of establishing that each element of the claims at issue are disclosed in the prior art, and went on to review the defendant’s evidence as to each element, “whether or not [the plaintiff] responded to [the defendant’s] evidence as to a particular element.”¹⁹⁸ The court did not hold that a failure to provide a claim-by-claim rebuttal analysis itself renders an expert report *per se* improper or inadmissible. Instead, it found that the general arguments provided by the plaintiff in that case were not persuasive due to the expert’s failure to provide a claim-by-claim analysis. A defendant bears the burden of proof in establishing that each claim is present in prior art. If it does provide evidence as to each element, then a failure by the plaintiff to provide a claim-by-claim analysis would be generally unpersuasive. Nonetheless, a defendant still bears the initial burden of proof as to each claim. Therefore, the Court will analyze the arguments of the parties to determine whether a genuine dispute of material fact exists as to the presence of each element of Claim 11 in the prior art.

ii. Boland Prior Art

First, Coca-Cola argues that the ‘377 Patent is anticipated by U.S.

¹⁹⁷ *Id.* at 526.

¹⁹⁸ *Id.*

Patent No. 7,762,181, issued to Michael John Boland on July 27, 2010 (the “Boland Patent”).¹⁹⁹ This patent is titled “Customised nutritional food and beverage dispensing system.”²⁰⁰ The Boland Patent describes a dispensing system that “is programmed to formulate a serving which best matches the customized serving selected by the customer within constraints set by the programming taking into account the inventory of ingredients and the health profile of the customer.”²⁰¹ Coca-Cola argues that the Boland Patent anticipates Claims 11, 12, and 21-23 of the ‘377 Patent.²⁰² Specifically, Coca-Cola contends that Claim 1 of the Boland Patent anticipates “many elements” of Claim 11.²⁰³

Claim 1 of the Boland Patent describes:

1. A system for dispensing a customized nutritional serving which comprises:

An ingredient storage module;

An ingredient processing module;

A serving dispenser;

A customer interface; and

A controller operatively linked to the customer interface

¹⁹⁹ Def.’s Mot. for Summ. J., at 36.

²⁰⁰ *Id.*

²⁰¹ Boland Patent [Doc. 138-23], at 2.

²⁰² Def.’s Mot. for Summ. J., at 36.

²⁰³ Def.’s Mot. for Summ. J., at 37.

and programmed to control the storage module, the processing module and the serving dispenser;

The controller having stored in its memory an inventory of ingredients in the storage module, their compositions and their properties, and customer profile data;

The controller being programmed to operate in the following manner:

When a customer selects a customized serving through the customer interface, the controller:

a) looks up the information stored in its memory, formulates a serving which best matches the customized serving selected by the customer within predetermined constraints set by its programming and presents a selected serving to the customer for confirmation or modification;

b) if the customer modifies the selection, repeats step a) on the modified selection, and presents the resulting selected serving to the customer for confirmation or modification;
and

c) when the customer has confirmed a serving issues instructions to the ingredient storage and processing modules and the serving dispenser to prepare and dispense the serving.²⁰⁴

Coca-Cola argues: that the “ingredient storage module” of the Boland Patent anticipates Claim 11’s “compartment containing elements of a beverage”; that Boland’s “ingredient processing module” anticipates Claim 11’s “mixing chamber”; that “the serving dispenser” of the Boland Patent anticipates Claim 11’s “dispensing section”; and that the “controller” of the Boland Patent

²⁰⁴ Boland Patent 29:31-61.

anticipates the “controller” of Claim 11.²⁰⁵

Rothschild, in response, contends that several elements of Claim 11 do not appear in the Boland Patent. Specifically, Rothschild argues that the Boland Patent does not disclose: (1) the “valve” element of Claim 11; (2) the “identifier of the beverage” element of Claim 11; (3) the “communication module” element of Claim 11; and (4) the “controller” element of Claim 11.²⁰⁶ The Court agrees that Coca-Cola has failed to show, by clear and convincing evidence, that every limitation of Claim 11 is present in the Boland Patent. Coca-Cola’s reply brief is telling – it focuses almost entirely on attacking the credibility of Rothschild’s expert witness, and does not dispute Rothschild’s contention that these elements are absent from the Boland Patent. In fact, Coca-Cola fails to discuss, or even mention, many of the elements of Claim 11 in its prior art analysis. This alone strongly suggests that Coca-Cola has failed to carry its burden as to invalidity. Coca-Cola’s assertion that “Claim 1 of Boland anticipates *many elements* of Claim 11” highlights this failure.²⁰⁷

For example, Coca-Cola fails to show that the “valve” element of Claim 11 is present in Boland. Claim 11 describes “at least one valve coupling the at least one compartment to a dispensing section configured to dispense the

²⁰⁵ Def.’s Mot. for Summ. J., at 38.

²⁰⁶ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 36-43.

²⁰⁷ Def.’s Mot. for Summ. J., at 37 (emphasis added).

beverage.”²⁰⁸ Coca-Cola does not point to a limitation in the Boland Patent describing the use of a valve. Moreover, Coca-Cola has failed to show that the Boland Patent contains the “identifier of a beverage element.” Claim 11 states that the user interface module of the claimed beverage dispenser is configured to receive both the “identity of a user” as well as “an identifier of the beverage,” which the communication module will transmit to a server in order to receive user generated beverage product preferences.²⁰⁹ Rothschild notes that this distinction is important, because the Boland Patent employs solely user profiles, and not beverage identifiers.²¹⁰ The machine described in Boland takes information about a user and constructs a beverage based upon that user’s health profile.²¹¹ Thus, it is very likely that a jury would conclude that the Boland Patent does not have an “identifier of the beverage” element.

Coca-Cola primarily argues that Rothschild failed to meet its burden to provide evidence as to the question of invalidity. Essentially, Coca-Cola argues that, although it bears the initial burden of proof, this burden shifts to Rothschild once it establishes a prima facie case of invalidity. However, Coca-Cola misunderstands the way this burden-shifting works. Although Rothschild may in fact need to provide evidence to rebut a prima facie case of invalidity,

²⁰⁸ ‘377 Patent 9:46-48.

²⁰⁹ ‘377 Patent 9:50-58.

²¹⁰ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 39.

²¹¹ Boland Patent 17:56-60.

Coca-Cola must *first* establish its prima facie case of invalidity to cause this burden-shifting. Here, Rothschild correctly points out that Coca-Cola has not established this prima facie case. As explained above, Coca-Cola has failed to show that several elements of Claim 11 were previously disclosed in the Boland Patent. Since Coca-Cola needs to show that each element of the asserted claims is present in prior art to establish invalidity by anticipation, it has failed to establish its prima facie case. Thus, Rothschild is under no burden to provide evidence. Finally, Coca-Cola has also failed to carry its burden of invalidity as to Claims 12, and 21-23 of the '377 Patent. Coca-Cola provides cursory arguments for why Claims 12, and 21-23 are anticipated by Boland.²¹² These threadbare arguments do not show that Coca-Cola is entitled to summary judgment on an issue for which it bears the burden of proof. Therefore, Coca-Cola is not entitled to summary judgment as to the invalidity by anticipation of Claims 11, 12, and 21-23 of the '377 Patent.

2. Obviousness

Next, Coca-Cola argues that the '377 Patent is invalid as obvious.²¹³ Coca-Cola, relying upon its expert report, contends that eight prior art references, “individually or in combination,” demonstrate that the '377 Patent was obvious. A patent is invalid “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole

²¹² See Def.'s Mot. for Summ. J., at 39, 42.

²¹³ Def.'s Mot. for Summ. J., at 43.

would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.”²¹⁴ The reason an obvious claim is invalid “is because its differences over the prior art are simply not sufficient to warrant a patent grant.”²¹⁵ “The determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on underlying facts.”²¹⁶ The Defendant is required to prove that the asserted claims are obvious by clear and convincing evidence.²¹⁷

This underlying factual inquiry into obviousness is guided by the *Graham* factors, which include: (1) the scope and content of the prior art, (2) the differences between the prior art and the claimed invention, (3) the level of ordinary skill in the art, and (4) any relevant secondary considerations.²¹⁸ Furthermore, “[w]hen determining whether a patent claiming a combination of known elements would have been obvious, we ‘must ask whether the improvement is more than the predictable use of prior art elements according

²¹⁴ 35 U.S.C. § 103.

²¹⁵ *Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1363 (Fed. Cir. 2005).

²¹⁶ *Allergan, Inc. v. Sandoz Inc.*, 726 F.3d 1286, 1290 (Fed. Cir. 2013) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)).

²¹⁷ *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015).

²¹⁸ *TriMed, Inc. v. Stryker Corp.*, 608 F.3d 1333, 1341 (Fed. Cir. 2010) (citing *Graham*, 383 U.S. at 17-18).

to their established functions.”²¹⁹ This inquiry usually involves “considering the ‘interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.’”²²⁰

Rothschild argues that Coca-Cola’s obviousness argument is “procedurally improper” because Coca-Cola “devoted one page to obviousness, citing six different combinations of various prior art references with no argument or analysis, instead incorporating by reference 329 pages of Dr. Alexander’s appendices.”²²¹ Rothschild contends that this is improper because it forces the Court to sift through a voluminous amount of documents to construct an argument on Coca-Cola’s behalf.²²² The Court agrees. Coca-Cola’s perfunctory argument does not present a legal or factual basis for why the ‘377 Patent is invalid as obvious.²²³ Its citation to its expert report is not a

²¹⁹ *Id.*

²²⁰ *Id.* (quoting *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)).

²²¹ Pl.’s Br. in Opp’n to Def.’s Mot. for Summ. J., at 44.

²²² *Id.*

²²³ See *InTouch Techs., Inc. v. VGo Commc’ns, Inc.*, CV 11-9185 PA (AJWx), 2012 WL 12903069, at *3 (C.D. Cal. Sept. 10, 2012) (“And rather than present legal and factual argument in its Motion, Defendant often opts merely to cite to the analysis of its experts and various prior art references, in hopes

“persuasive or effective” strategy, especially given its “burden of proving invalidity by clear and convincing evidence.”²²⁴ At a minimum, Coca-Cola’s half-page argument fails to show that it is entitled to judgment as a matter of law on an issue for which it bears the burden of proof. To be entitled to summary judgment on the issue of obviousness, Coca-Cola would need to prove that no rational jury could conclude that the ‘377 Patent is not invalid due to obviousness. Coca-Cola’s cursory argument for obviousness fails to meet such a high burden. Therefore, the Court concludes that Coca-Cola is not entitled to summary judgment as to invalidity due to obviousness.

C. Willful Infringement

Finally, Coca-Cola moves for summary judgment as to Rothschild’s claim for willful infringement. Section 285 of the Patent Act allows district courts to award attorneys’ fees to prevailing parties in “exceptional cases.”²²⁵ The Supreme Court has provided that “[t]he subjective willfulness of a patent infringer, intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless.”²²⁶ “Infringement is willful when the infringer was aware of the asserted patent, but nonetheless

that the Court will connect the dots.”).

²²⁴ *Id.*

²²⁵ *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1932 (2016) (citing 35 U.S.C. § 285).

²²⁶ *Id.* at 1933.

acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.”²²⁷ Whether infringement was willful is a factual question.²²⁸ Since Coca-Cola is entitled to summary judgment on the question of infringement, it is also entitled to summary judgment on the issue of willfulness.

IV. Conclusion

For the reasons stated above, the Defendant’s Motion for Summary Judgment of Non-Infringement and Invalidity [Doc. 138] is GRANTED as to non-infringement of Claims 11, 12, 17, and 21-23, and DENIED as to the invalidity of U.S. Patent No. 8,417,377.

SO ORDERED, this 23 day of April, 2019.

/s/Thomas W. Thrash
THOMAS W. THRASH, JR.
United States District Judge

²²⁷ *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 860 (Fed. Cir. 2010), *aff’d*, 564 U.S. 91 (2011) (internal quotations omitted).

²²⁸ *Id.* at 859.